CREDIT STANDARDS IN HOUSING LENDING - SOME FURTHER INSIGHTS

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Introduction

Residential mortgage lending continues to underpin the balance sheet expansion and profitability of authorised deposit-taking institutions (ADIs) in Australia. While private equity has attracted much of the media attention recently, the fact remains that over the first three quarters of 2006/07 owner-occupied and investment housing lending added a further $45 billion to ADI assets. In an economy of enduring strength, housing lending has generally been very good business to date. In writing it, nonetheless, ADIs have been willing to move out the risk spectrum by loosening their credit standards, around the edges certainly.

This latter development piqued APRA's interest some time ago and housing lending remains a major focus of our supervision of the ADI sector.

When I first addressed the Institute of Chartered Accountants in Australia, a little over two years ago, I offered some broad perspectives on the role of APRA and the steps we were taking to ensure that APRA was a vigilant, vigorous and effective prudential regulator. Today, on my return visit, I want to illustrate APRA in action and share with you some recent work we have been doing to better understand ADI credit standards.

I have spoken on this topic on other occasions and you may be thinking that the topic has gone a little 'stale' by now, particularly given that the unwinding of the housing market boom conditions of 2002 and 2003 (and later in some capitals) has been orderly to date. Not so! The distress of some housing borrowers in parts of our major capitals and, further afield, the collapse of the sub-prime housing lending market in the United States are clear reminders that housing lending can have a down-side, even in strong economies.

In addition, APRA has learnt a lot more about one important aspect of ADI credit standards — how ADIs assess the ability of their customers to service their housing loans. We have completed a comprehensive review of the debt serviceability policies of a large group of ADIs, which we followed up with a survey of all housing loan approvals by that group in the month of September last year. This analysis has given APRA further detailed insights into the riskiness of ADI housing loan portfolios and a solid 'peer group' basis to pursue any prudential concerns with individual lenders.

Let me start by putting our interest in debt serviceability into context.

Housing lending in Australia

Over recent years, sustained growth in housing lending has transformed the balance sheets of ADIs in Australia, particularly those that were not hitherto specialist housing lenders. The story will be very familiar to you. The greater willingness of Australian households to incur debt — in a low unemployment, low inflation, low interest rate environment — has coincided with intense competition among housing lenders. The outcome has been an increase in the number and variety of mortgage products available and to substantial price discounting. For much more than a decade now, lending to households (mostly for housing) has run at double-digit annual growth rates, which peaked at over 20 per cent in the early months of 2004 and are still running around the mid-teens.

Housing lending now comprises more than half of total domestic lending by ADIs, compared with only around a quarter in 1990. This switch in the composition of lending portfolios has unwound a little over the past couple of years with renewed strong growth in business lending, but it remains pronounced nonetheless.

Housing lending has traditionally been a safe asset class for ADIs. Though housing market stress affected some parts of Australia in the 1980s and early 1990s, Australia has not experienced the levels of mortgage defaults and losses associated with significant housing market corrections in the United Kingdom, other European countries and some regions in the United States during that period.

Conservative credit standards have had much to do with the traditional safety of housing lending in Australia. Not that long ago, Australian borrowers were required to save for a substantial down-payment on a home, demonstrate comfortable coverage of the loan repayment through secure income streams, verify that their credit history was sound and, finally, ensure a full valuation of a property (including an internal inspection).

ADIs now do not necessarily look for all of these assurances, a concern that has been well documented by APRA and the Reserve Bank of Australia. The departures from traditional lending practices we have focussed on include increased reliance on third parties to originate loans; a gradual relaxation of debt serviceability criteria; wider availability of higher risk mortgage products involving higher loan-to-valuation ratios or self-verification of income sources; and a movement towards alternative property valuation methods.

APRA does not hanker for a complete return to traditional lending practices. The Australian community has obviously benefited from the narrowing of housing loan margins and the product innovations produced by the 'ruck and maul' of competition in the housing lending market. And the level of problem housing loans remains very low by historical and international standards. In the current economic climate, it may be hard for an outside observer to see much risk attaching to housing lending.

No, nostalgia is not one of APRA's core values! However, being forward looking is. The departures from traditional lending practices have signalled an increased appetite for risks on the part of our lenders and these risks need to be identified and carefully managed. Housing loan arrears have been edging up over the past couple of years, albeit slowly and from a very low base, and this trend could deteriorate markedly if the economic climate were to sour.

When personal incomes are rising, unemployment is low and housing prices steady or on the up, it is difficult for ADI boards and management to distinguish prudent housing lending from poorly managed lending, at least by using backward-looking measures such as loan arrears or realised loss data. It can be difficult for APRA as well. This is why our front-line supervisors and specialist credit risk team work closely with our lenders to review their credit policies and assess the robustness of internal controls. We have also had external auditors bring another pair of eyes to the task.

In addition, APRA has devoted considerable effort to better understand housing lending risk in Australia. In 2002/03, we conducted a major stress test of ADI housing lending, which confirmed the resilience of the ADI sector to the 'first round' effects at least of a substantial fall in housing prices and increase in mortgage defaults. In 2003/04, we surveyed the property valuation practices used by ADIs and lenders mortgage insurers, which confirmed the movement to alternative property valuation methods.

Our recent work on debt serviceability, to which I now turn, continues this investigative tradition.

APRA's debt serviceability project

ADIs use two broad methods for assessing the debt servicing capacity of borrowers.

The traditional method has been the debt servicing ratio, which compares debt (and other fixed payments) to the borrower's gross income. ADIs using this method generally imposed a 'rule of thumb' limit of 30 per cent on the share of gross income that could prudently be absorbed by debt payments. Under this method, living expenses are, by definition, assumed to increase with the borrower's income.

This traditional method has increasingly given way to what are called net income surplus models. These models require the borrower to have a minimum surplus of net after-tax income after taking into account debt servicing, other fixed payments and a basic level of living expenses. In contrast to the debt servicing ratio method, these expenses do not vary with the borrower's income. These models have their analytical attractions. They are more granular. They use after-tax rather than pre-tax income and explicitly account for living expenses and debt servicing requirements other than the housing loan. They also allow the lender, in a systematic way, to discount income streams or add margins to living expenses and interest rates to test whether a borrower could continue to meet repayments under adverse scenarios.

At the same time, net income surplus models can in principle allow a higher level of borrowing than the debt servicing ratio method for borrowers with the same characteristics. What is critical in these models is the estimate of living expenses — an unrealistically low estimate would artificially inflate borrowing capacity and would be tantamount to a lowering of credit standards.

APRA's interest in debt serviceability has been motivated by the need to be better informed about:

- the types of methods currently in use;
- how debt serviceability requirements have changed over time, particularly the extent to which ADIs are lending higher amounts or at higher multiples of income; and
- the implications for the riskiness of ADI housing loan portfolios.

The project has proceeded in two phases. The first involved a detailed 'at desk' review of ADI debt serviceability policies as outlined in the credit policy manuals of our largest housing lenders. The second involved the collection of data from this group of lenders on all housing loan approvals in the month of September 2006.

Use of debt serviceability models

In phase one, APRA reviewed the credit policy manuals of 47 ADIs, which account for around 80 per cent of total ADI housing loans. For banks, we were able to compare these policies to those from a similar study conducted by the Reserve Bank of Australia in 1998.

The review confirmed that the net income surplus model is the most common debt serviceability test used by ADIs. Ninety per cent of the ADIs reviewed use this model

(some in conjunction still with the debt servicing ratio); in 1998 only around half of the banks did so.

Under the net income surplus model, the maximum loan amount is calculated on the basis of eligible sources of income, an estimate of basic living expenses, the interest rate, and any discount or margins applied to these components. We found that the methodology and assumptions used, and therefore the maximum loan amounts, vary significantly across ADIs, and more so than we expected. For example:

- some ADIs have a stricter definition of eligible income for low-doc, high loan-to-valuation or mortgage insured loans; some ADIs also apply a higher discount factor for certain types and locations of investment properties to reflect a higher risk of vacancies;

- most ADIs use either the Henderson Poverty Index (HPI) or (the higher) Household Expenditure Survey (HES) data from the Australian Bureau of Statistics as the basis for their living expense calculations. Around 20 per cent of ADIs add a margin to these calculations to account for error in the estimates. Our review indicated that many lenders were, at the time, using estimates of living expenses below the HPI or were not regularly updating their estimates;

- most ADIs stress debt repayments on new and existing debts to ensure that the borrower is able to cope with some increase in interest rates. The interest rate margin applied varied from 0.75 per cent to three per cent, and averaged two per cent; and

- around half of the ADIs use credit scoring techniques as part of the loan approval process; in comparison, only four banks used such techniques in 1998.

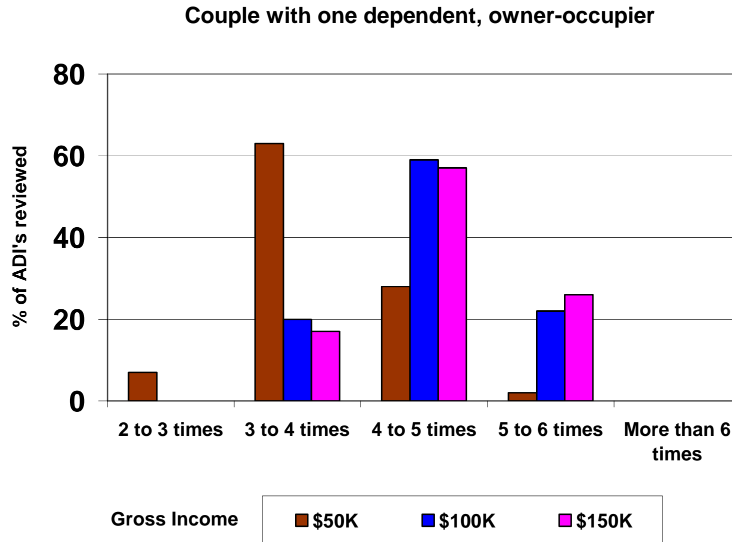
The granularity of the net income surplus model is apparent from the wide range of additional risk factors built into the calculations, including the size and composition of the household, the loan product and security (for example, inner city or serviced apartments), and whether the loan is mortgage insured or securitised. ADIs also vary the serviceability requirement by exercising their discretion to lend outside policy guidelines, by considering other factors — such as stable employment history or strong asset and cash position — that would offset a higher debt servicing burden.

Only five of the ADIs reviewed use the debt servicing ratio as their only serviceability measure while, as noted, some others use it jointly with the net income surplus model. More than anything, this statistic confirms the change in lending practices. The maximum acceptable debt servicing ratio for loan approvals is typically 30 to 40 per cent and there are some indications that ADIs still using the debt servicing ratio have increased these thresholds, particularly for high income borrowers.

Because of the differences in methodology and assumptions, comparing any individual aspect of a debt serviceability policy can be misleading. An ADI may, for example, apply a high margin to interest rates but at the same time assume relatively low living expenses. To enable consistent comparisons, we did what you probably would have done if you have applied for a loan and used a lender's on-line mortgage calculator — we used the lenders' own models and assumptions to determine the maximum amount they would lend to a range of hypothetical borrowers.

Our calculations confirmed that there is wide dispersion in maximum loan amounts across the 47 lenders — the most aggressive ADI will typically be willing to lend almost twice as much as the most conservative (Graph 1).

Graph 1: Maximum notional loan as multiple of gross income



This variation is highest for high income households. More than half of the lenders would allow an individual borrower on an income of $100,000 to borrow more than $500,000 for an owner-occupier loan, equating to an average debt servicing ratio of 50 per cent. So much for the traditional 30 per cent rule of thumb! Of course, people on higher incomes tend to spend a relatively larger share of their income on housing, so this result is perhaps not unexpected or worrisome.

Phase one of our project showed that, on paper at least, ADIs could create riskier housing loan portfolios than under traditional lending standards. What we needed to know was what ADIs did in practice. Hence phase two.

Credit standards in practice

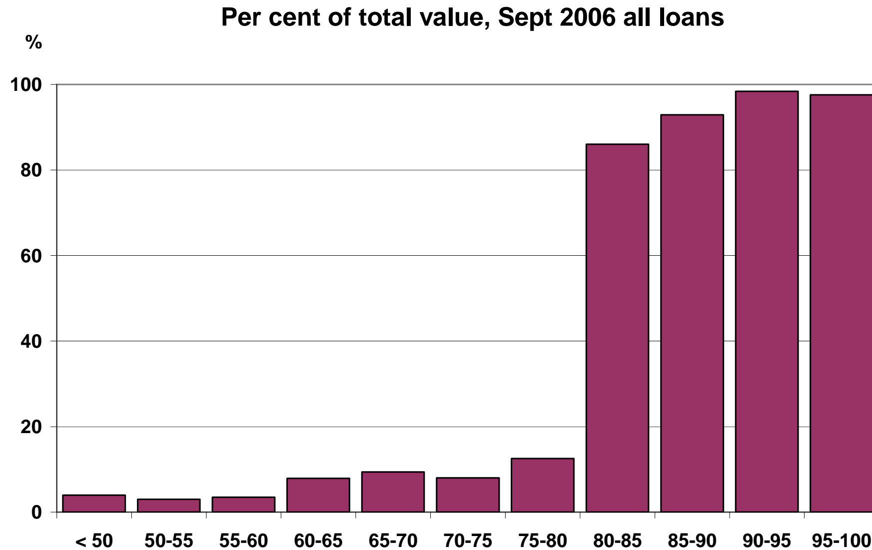
In phase two, we invited those ADIs that participated in phase one to provide data on every housing loan approved during the month of September 2006. All but three of these ADIs contributed. The approval data covered around 115,000 loans worth $27 billion, giving us a narrow but deep window into the housing lending market. The data included details of the income and other obligations of applicants (not identified in any way), dependents, type of loan and loan-to-valuation ratios (LVRs).

Some interesting facts about the housing lending landscape emerged:

- the median loan to an owner-occupier was around $200,000 and the median income of that borrower was around $72,500;
- 28 per cent of the loans by value were to investors and 10 per cent to first-home buyers;
- 35 per cent of the loans by value were refinancings of existing home loans, pointing to considerable ‘churn’ in the market. It also suggests homeowners were continuing to refinance as a way of releasing equity in their homes for other expenditure;

- 28 per cent of the loans by value were mortgage insured and most of the insured loans were in the higher LVR buckets — around 94 per cent of loans with LVR greater than 80 per cent were mortgage insured (Graph 2); and

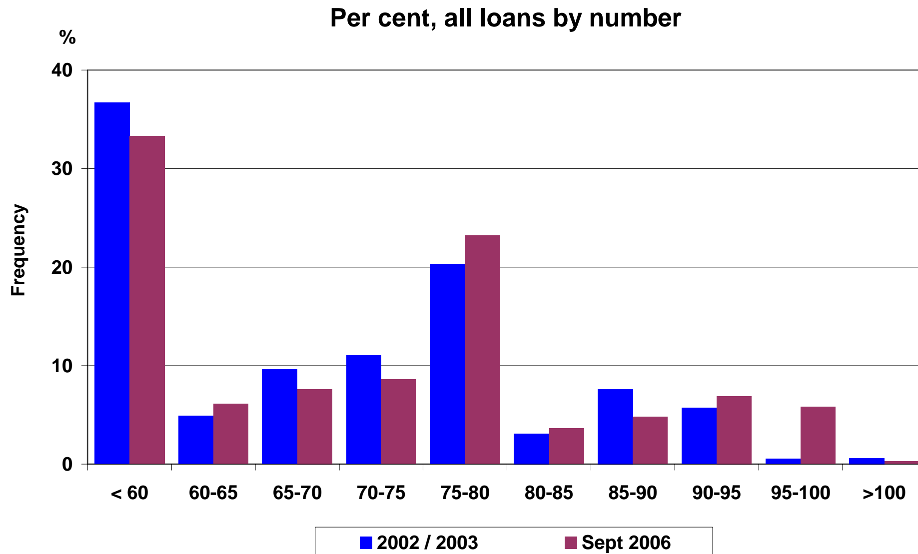
Graph 2: Mortgage insured vs uninsured lending



- 35 per cent of the loans were originated through third parties such as mortgage brokers. This is an aspect we monitor closely because we have found that some lenders were less diligent in verifying borrower information when borrowers did not walk in through branch doors.

What did we learn about lending standards and debt serviceability? Let me look at four different dimensions. Firstly **LVRs**. Graph 3 shows the distribution of LVRs from data collected for APRA's 2002/03 stress test and for loan approvals in September 2006. While these two data sets are not strictly comparable for various reasons, we nevertheless see a fairly consistent picture, except for housing loans in the 95 to 100 per cent LVR where there is a marked shift. Both data sets also identified a very small percentage of mortgages that were approved with LVRs above 100 per cent — ie the loan was more than the stated value of the home — although the data may not have captured other collateral being held against these loans.

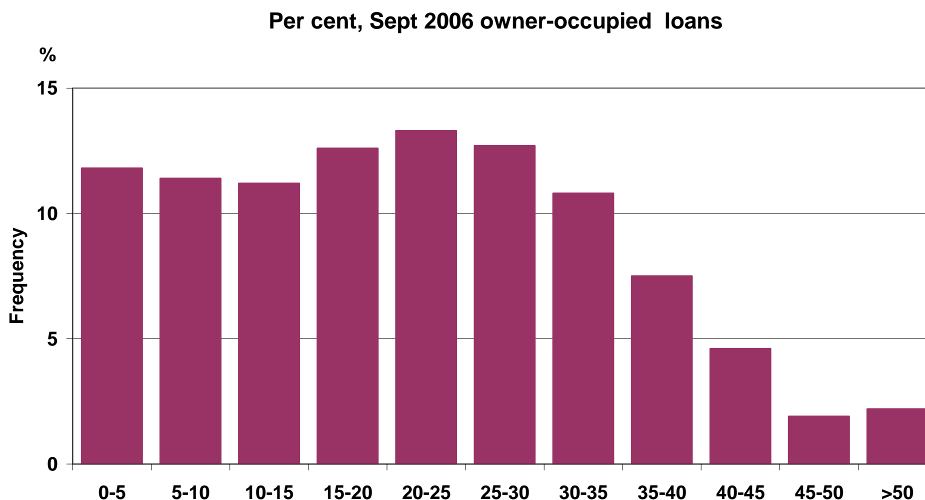
Graph 3: Loan-to-valuation ratios



In other countries, loans involving zero or near-zero equity have been the source of significant losses in a downturn. In Australia, ADIs almost always pass off the risk in these higher LVR loans to mortgage insurers. In the case of the very small percentage of housing loans with LVRs between 90 and 100 per cent that were not mortgage insured in the September 2006 data, there could be other factors at work that were not identified, such as guarantees provided by third parties.

Secondly, **debt servicing ratios.** Graph 4 shows the traditional debt servicing ratio — the ratio of debt repayments to gross income — for the 85,000 owner-occupied loans approved in our September 2006 collection. (Debt serviceability for investment loans is calculated differently.) Clearly, the traditional 30 per cent 'rule of thumb' is no longer a maximum. The median debt-servicing ratio was 21 per cent, but over a quarter of new loans were provided at ratios above 30 per cent, and significantly above in some cases.

Graph 4: Debt servicing ratios



Thirdly, **net income surplus models.** To enable comparisons to be made between ADIs on a consistent basis, APRA has calculated proxy measures of what we call the

net income "coverage" of loan repayments, using a set of standard assumptions. The numerator of our measure is the after-tax income of the borrower (reported or calculated), less all debt servicing obligations other than the housing loan, and living expenses based on the HPI and family size (our model does not adjust for location). The denominator is the sum of interest and principal repayments on the loan, which APRA has estimated using current interest rates, the reported loan amount and an assumed 25-year notional maturity.

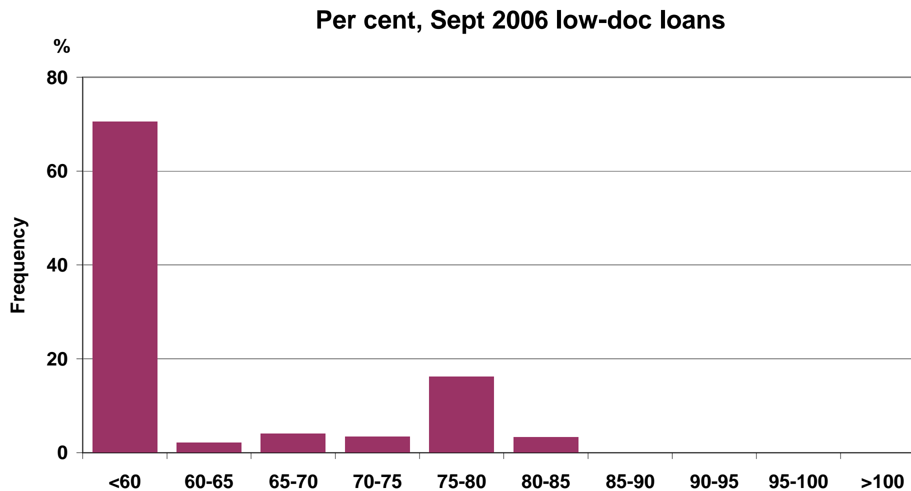
Naturally, this measure of net income coverage would be expected to be well in excess of one. The more the measure exceeds one, the greater is the cushion available to meet loan obligations without the need to draw on sources other than income or to compromise consumption standards. A word of caution here. APRA did not request all of the possible information that a lender might use in assessing serviceability, so our measure of net income coverage should be regarded as indicative only. For example, parents guaranteeing a child's first housing loan and helping out in the early years would not be captured in our measure even though parental involvement would make the loan a perfectly reasonable one for an ADI to provide.

As with maximum lending amounts, there is considerable variation in net income coverage across the ADIs surveyed. In the case of owner-occupied housing, the median coverage is 1.9 times debt repayment and for most ADIs the measure is between 1.5 and 2.5. These findings suggest that most borrowers are well insulated from potential problems. Nonetheless, there were a number of new loans with lower net income cushions, where borrowers may be more vulnerable to increases in interest rates or declines in incomes — not necessarily from losing their job but from reduced overtime or bonuses or a fall-off in business for small traders. We expect ADIs approving loans with apparent low net income cushions to satisfy themselves that there are other factors in the loan application that support the credit decision. We have also reminded ADIs of the outcomes of recent court cases, which emphasise that lenders must assess the ability of a borrower to repay the loan and must not be concerned solely with how much the collateral property is or appears to be worth.

An obvious question to ask is whether lenders that appear aggressive on paper are also aggressive in practice. To answer that question, we lined up debt servicing ratios against maximum loan sizes, the latter calculated from stated lending policies for a representative borrower. While there was reasonably significant correlation, the relationship between an ADI's debt servicing ratio and the strictness of its lending policies was not perfectly aligned. This suggests that while stated lending policies provide an overall guide to an ADI's risk appetite, in practice factors such as the ADI's natural customer base, internal practices or policy overrides are also likely to play a significant role in determining the ultimate riskiness of housing loan portfolios.

A final dimension of credit standards is **low-doc lending**. Around 10 per cent by value of all loans approved in our September 2006 collection were low-doc loans. This product is no longer the province of unregulated lenders and a few more adventurous ADIs; nearly half of the ADIs surveyed were making such loans. Loans in which borrowers self-certify their repayment capacity are inherently riskier than their full-documentation counterparts and this is confirmed, for example, by the higher arrears rates currently observed on securitised low-doc lending. That said, the ADIs surveyed appear to be taking a cautious approach to approving low-doc loans. Low-doc loans were made at significantly lower LVRs (54 per cent) than the average for all loans (67 per cent) and very few low-doc loans were written at LVRs above 85 per cent (Graph 5).

Graph 5: Loan-to-valuation ratios



Summary

APRA's two-phase review of debt serviceability has provided us with considerable detail on ADI lending practices. It has not changed our general assessment that housing lending remains a sound asset class for our regulated lenders. However, 'sound' does not mean 'bullet proof'. The review has confirmed that housing lending portfolios have become somewhat more risky, whether measured in terms of higher LVRs or debt servicing burdens on borrowers.

This is, of course, not news to APRA because credit standards in housing lending, as I said at the outset, have been a major focus of our on-site supervision for some time. What we have gained from the review, in particular, is 'peer group' data that allow us to direct our attention to those ADIs that, for example, have housing loan portfolios weighted more to loans with lower net income cushions than other ADIs, or that otherwise appear to have more aggressive lending practices.

As APRA has often emphasised, greater appetite for risk needs to be matched by robust risk management systems and adequate capital resources. In an environment of sustained economic growth and very low housing loan losses, the value of investment in risk management systems in this area is easy to underestimate.

Consider a hypothetical ADI with a $1 billion housing loan portfolio. This lender might think that the maximum credit losses in the portfolio, drawing on experience over the past decade or so, might be in the order of 10 basis points, a figure which some ADIs had earlier calculated from internal stress testing. APRA's 2002/03 stress test, however, suggested losses in an adverse — though not implausible — scenario that could be ten times higher than this. The prudential issue is clear: the ADI may be investing in risk management systems and otherwise operating as if it were exposed to a $1 million risk, when it should be investing for and devoting management attention to a risk that is considerably higher.

We need to remember, as well, that the net income surplus models now in vogue have not been tested in adversity. Their fundamental assumption that all net income above basic living expenses and other fixed commitments is potentially available to service the housing loan could be sorely tested in a crunch. Would a highly geared borrower be willing or able to compromise current living standards to continue loan repayments, particularly if the value of the house had fallen below the loan amount?

Fortunately, we in Australia have limited experience of these circumstances but we do know from other countries that lenders' assumptions about the willingness of borrowers to repay when under serious stress have been disappointed. 'Mailing in the keys' was a not unheard of response.

In repeating our concerns about credit standards, I am conscious that APRA might be perceived to be 'crying wolf' too often on housing lending. No one would welcome a continuation of Australia's economic strength and the recent resilience of most housing markets — from which ADIs have been major beneficiaries — more than the prudential regulator. Nonetheless, the risk currents in housing lending have been moving, slowly but inexorably, in one direction only and this demands careful management by our regulated lenders, and constant vigilance on APRA's part.